

NOTES ON SOME NEW ZEALAND AND AUSTRALIAN
PARASITIC HYMENOPTERA, WITH DESCRIPTIONS
OF NEW GENERA AND NEW SPECIES.

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(Communicated by *W. W. Froggatt, F.L.S.*)

The following notes and descriptions of new genera and new species of parasitic Hymenoptera are based upon a small but most interesting collection of these insects, sent me last summer by Mr. Walter W. Froggatt, Government Entomologist of New South Wales, or upon specimens collected by Mr. Albert Koebele, formerly an Assistant Entomologist in the U.S. Department of Agriculture, but at present Government Entomologist in the Hawaiian Islands.

Superfamily iii.—ISSPOIDEA.

Family xxxiii.—BETHYLIDÆ.

Genus ATELEOPTERUS, Förster.

(1) ATELEOPTERUS LONGICEPS, n.sp.

♀.—Length 4.5 mm. Very elongate, black and shining; head anteriorly finely alutaceous, metathorax delicately shagreened; tibiæ ferruginous, tarsi yellowish; antennæ, except the scape basally, with the first four or five joints of the flagellum, yellowish; scape basally and the other joints fuscous or dark brown. Wings, except the basal third which is hyaline, are fuscous; subcostal

vein—the only vein present—brown. Head large, oblong and slightly wider than the elongate thorax, nearly thrice as long as wide, the sides being parallel. Thorax about once and one-half as long as the head, rounded anteriorly and slightly narrowed posteriorly, metathorax about as long as scutellum, mesonotum and pronotum united. Abdomen conic-ovate, as long as the head and thorax united and much wider than the thorax, with the apical margins of dorsal segments 2-4 slightly sinuate medially.

Type—No. 4870, U.S.N.M.

Hab.—Rose Bay, near Sydney, N.S.W.

Described from four ♀ specimens, bred by Mr. Froggatt, March 6, 1892, from "hollow stem of *Acacia discolor*." The species will be found to be parasitic on some wood-boring coleopterous larva inhabiting the stem.

Genus SIEROLA, Cameron.

(2) SIEROLA ANTIPODA, n.sp.

♀.—Length 1.5 to 1.8 mm. Black, shining; scape brown, flagellum yellowish, shading off into brown at tip; legs dark brownish-piceous, all trochanters, anterior and middle tibiae, tips of hind tibiae and all tarsi yellowish; wings hyaline, subcostal vein, prostigma and stigma brown, the other veins pallid: one closed discal cell and a closed marginal cell.

Head oblong, fully twice as long as wide, minutely and delicately shagreened, with some minute punctures scattered over its surface. Pronotum trapezoidal, not short; mesonotum and scutellum microscopically shagreened and united scarcely longer than the pronotum; no parapsidal furrows; metanotum longer than the mesonotum and scutellum united, shining; above minutely delicately shagreened but without carinae except at the lateral margins posteriorly.

Type—No. 4871, U.S.N.M.

Hab.—Sydney, N.S.W.

Host—Dipt.: *Cecidomyia frauenfeldi*, a species forming soft red galls on *Melaleuca* (W. W. Froggatt).

(3) *SIEROLA WEBSTERI*, n.sp.

♀.—Length 2.4 mm. Black; all tibiæ and tarsi rufo-testaceous; wings hyaline, tegulæ, parastigma and stigma piceous-black; veins brownish-yellow.

Head and thorax above finely coriaceous, the former with a few minute punctures scattered over its surface. Antennæ black, except joints 2-5, the first joint or the scape subglobose, the others small, moniliform.

Type—No. 4872, U.S.N.M.

Hab.—New South Wales (received from Prof. F. M. Webster).

Superfamily vi.—**CYNIPOIDEA** †Family lviii.—**FIGITIDÆ**.Subfamily iii.—**ANACHARINÆ**.Genus **ANACHARIS**, Dalman.(4) *ANACHARIS ZEALANDICA*, n.sp.

♀.—Length 1.6 mm. Polished black; antennæ, except first two joints and base of the third, and legs, except coxæ, trochanters and most of femora, dark honey-yellow; wings hyaline, venation dark brown.

Head and thorax clothed with a sparse, silvery white pubescence, dense on metapleura; first joint of flagellum the longest, being as long as the scape and the pedicel united; parapsidal furrows distinct, crenate; scutellum with two large oblique foveæ at base, its disc coarsely reticulate; the mesopleura anteriorly finely shagreened, the mesepipleura being perpendicularly aciculated; metathorax rugose. Abdomen longly petiolate, the petiole smooth and as long as the hind femur, body ovate, subcompressed and highly polished.

Type—No. 4873, U.S.N.M.

Hab.—New Zealand (A. Koebele, collector).

(5) *ANACHARIS AUSTRALIENSIS*, n.sp.

♂.—Length 1.8 mm. Agrees closely with *A. zealandica*, except as follows:—The antennæ from the apex of the second joint and

beneath are entirely brownish-yellow; the legs, except the coxæ and the hind trochanters, *above* are brownish-yellow; wings hyaline, the venation light brown; while the petiole of the abdomen is shorter, being only about four-fifths the length of the hind femur.

Type—No 4874, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Subfamily v.—EUCOELINÆ.

Genus TRYBLOGRAPHA, Förster.

(6) TRYBLOGRAPHA AUSTRALIENSIS, n.sp.

♀.—Length 3 mm. Polished black; antennæ, except first joint, and legs, including all coxæ, red; scape obfuscated; wings hyaline, with a brownish-red cloud enclosing the whole of the marginal cell and a fainter cloud beneath it as far as to the basal vein.

Antennæ gradually incrassated toward apex; pedicel oval, first joint of flagellum clavate, the following gradually decreasing in length, the first being the longest, about thrice as long as thick at apex, the joints from the fifth oval-moniliform. Scutellum with two large deep foveæ at base, separated from each other only by a delicate carina, the cup broadly oval, with a deep fovea posteriorly, the sides below the cup and posteriorly coarsely rugose, the lateral ridge or projection from the mesonotum being delicately, longitudinally aciculated. Metathorax very short, abruptly declivous, rugose, with a deep median depression. Abdomen ovate, subcompressed, not longer than thorax, with a band of white pubescence at base above.

Type—No. 4875, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Subfamily vi.—ALLOTRIINÆ.

Genus ALLOTRIA, Westwood.

(7) ALLOTRIA AUSTRALIÆ, n.sp.

♀.—Length 0.09 mm. Polished, impunctate, head brown, face yellowish, thorax, except metathorax, and abdomen black;

antennæ, except towards apex from fifth joint, and legs, including coxæ, yellow; antennæ from fifth joint brown; wings hyaline, ciliate, veins brown.

First joint of flagellum longest, a little more than four times as long as thick, second a little shorter, being only about four times as long as thick, joints beyond to the fifth imperceptibly shortening, the following slightly thicker and subequal. Metathorax sparsely pubescent with two parallel carinæ down the middle.

Type—No. 4876, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Superfamily vii.—CHALCIDOIDEA.

Family lxi.—TORYMIDÆ.

Subfamily ii.—TORYMINÆ.

Genus TORYMUS, Dalman.

(8) TORYMUS EUCALYPTI, n.sp.

♀.—Length 2·8 to 3 mm.; ovipositor as long as body. Gold-green with cupreous reflections; head in front and mesopleura blue-green; mandibles rufous; palpi white; antennæ brown-black, scape and pedicel aeneous; tegulæ and legs, except coxæ and the hind femora which are metallic green, pale yellowish, tibial spurs and tarsi white; wings hyaline, stigma and marginal vein brown.

Head shagreened and punctate, ocelli red; thorax above transversely wrinkled or striate, with some sparse punctures scattered over its surface; metathorax smooth, with some short lineations at extreme base just back of scutellum; mesopleura smooth, impunctate, except some delicate lines on anterior margin; hind coxæ large, coarsely reticulated.

♂.—Length 2 to 2·5 mm. Agrees well with the female except in the usual sexual differences, and in having sometimes a brownish or metallic band on the anterior and middle femora, the extreme base of the scape being yellowish, while the flagellum is stouter, with the joints a little wider than long.

Type—No. 4877, U.S.N.M.

Hab.—Sydney, N.S.W.

Described from 3 ♀ and 5 ♂ specimens bred by Mr. Froggatt from "a soft red gall on *Eucalyptus*."

Subfamily iv.—MEGASTIGMINÆ.

Genus MEGASTIGMUS, Dalman.

(9) MEGASTIGMUS IAMENUS, Walker.

1839. Walk. Monogr. Chalcid. ii. p. 6.

Hab.—Sydney, N.S. Wales. Of this species Mr. Froggatt has sent 1 ♀, bred from galls of *Brachyscelis pileata*, and 4 ♀ specimens bred from a globular gall on *Eucalyptus*. The latter are considerably larger than the dimensions of the species as given by Walker, but otherwise seem to agree well with his description, and with the smaller form bred from *B. pileata*.

(10) MEGASTIGMUS ASTERI, n.sp.

♀.—Length 3 to 4 mm.; ovipositor as long as body. Brownish-yellow, smooth and shining, except some delicate transverse striae on vertex of head, on mesonotum and within the femoral impression on the mesopleura; body clothed with some sparse black and white hairs, metapleura with long, white hairs; sutures of scutellum and metathorax, anterior margin of middle lobe of mesonotum, mesosternum, bands on dorsum of abdomen and sheaths of ovipositor black or brown-black. Wings hyaline, the large, rounded stigma and veins piceous-black or brown-black. Antennæ brown-black, scape and pedicel brownish-yellow; first five joints of funicle about twice as long as wide, seventh joint very little longer than thick.

♂.—Length 1·8 to 2 mm. Agrees very closely with the ♀ in colour, but there is a dusky spot on the vertex enclosing the ocelli; the occiput, a band on anterior margin of mesonotum and metathorax being black; while the flagellum is of a light colour, the joints of funicle being scarcely once and one-half as long as thick.

Type—No. 4878, U.S.N.M.

Hab.—Sydney, N.S.W.

Host—Dipt. Described from 3 ♀ and 2 ♂ specimens, bred by Mr. Froggatt from a dipterous gall on Snowbush (*Aster ramulosus*).

(11) MEGASTIGMUS BRACHYSCOLIDIS, n.sp.

♀.—Length 2 mm. Black or dark brown, ovipositor a little shorter than body; orbits broadly, lower part of face, pronotum, lateral lobes of mesonotum, and sometimes middle lobe, axillæ, a narrow transverse line back of scutellum, mouth parts, except teeth of mandibles, and legs, except hind coxæ, pale yellowish. Abdomen paler beneath and at apex. Antennæ brown, scape pale beneath, flagellum subclavate, first joint of funicle about once and one-half as long as thick, following joints gradually shortening, seventh a little wider than long. Wings hyaline, stigma and veins brown. Vertex of head and mesonotum delicately transversely striate, scutellum and metanotum delicately shagreened.

♂.—Length 1·8 mm. Black, shining; orbits and face below antennæ, a transverse band on hind margin of pronotum, lateral lobes of mesonotum posteriorly, axillæ along their inner suture, extreme tip of abdomen, and legs, except hind coxæ, all yellowish. Antennæ brown, joints of funicle scarcely longer than wide; wings hyaline, stigma and veins brown-black.

Type—No. 4879, U.S.N.M.

Hab.—Sydney, N.S.W.

Host—Rhynch.: *Brachyscelis crispa*, Olliff (Froggatt). Described from 2 ♀ and 2 ♂ specimens.

Family lxii.—CHALCIDIDÆ.

Subfamily ii.—CHALCIDINÆ.

Genus HALTICHELLA, Spinola.

(12) HALTICHELLA BICOLOR, n.sp.

♀.—Length 3·5 mm. Head and thorax black, closely punctate, and clothed with a sparse, silvery white pubescence; scape, legs

and abdomen ferruginous; flagellum long, filiform, cylindrical throughout, black.

Head concave anteriorly, vertex transversely acute, anterior depression bounded by a delicate carina, the same extending across vertex and separating front ocellus from lateral ocelli. Wings hyaline, venation brown, postmarginal vein acute, longer than stigmal vein. Hind femora much swollen and armed with numerous minute black teeth. Abdomen pointed, ovate, ovipositor subexserted.

Type—No. 4880, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Genus *ENCYRTOCEPHALUS*, Ashmead, n.g.

(13) *ENCYRTOCEPHALUS SIMPLICIPES*, n.sp.

♂.—Length 2.2 mm. Robust, ferruginous; head anteriorly shagreened; thorax above, including scutellum, closely, rugulosely punctate; club of antennæ white; scape and pedicel yellowish, funicle dark brown; abdomen rufo-piceous, obfuscated at apex; wings hyaline, with a large discoidal fuscous cloud extending across wings below marginal and stigmal veins, the cloud having, however, a clear space just beneath marginal vein.

Head transverse, wider than thorax, and very thin antero-posteriorly, or lenticular, as in many genera in the *Encyrtinae*. Antennæ 13-jointed, with 2 ring-joints, inserted below middle of face, scape rather long, pedicel obconical, more than twice longer than thick at apex; funicle 6-jointed, all the joints fluted, not longer than wide, joints 4 to 6 a little wider than long. Thorax much as in *Decatoma*, pronotum wide, about four times as wide as long, mesonotum twice as wide as long, without distinct furrows. Front wings with a very broad costal cell, marginal vein long, two-thirds the length of subcostal vein, stigmal vein rather long and gently curved and ending in a small club with an uncus, while the postmarginal is nearly as long as the stigmal. Hind

femora much swollen but unarmed, *without* teeth or serrations; abdomen small, oval, subdepressed.

Type—No. 4881, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Family lxiii.—EURYTOMIDÆ.

Genus SYSTOLE, Walker.

(14) SYSTOLE KOEBELEI, n.sp.

♀.—Length 2.5 mm. Robust, brownish-yellow and sparsely pubescent; stemmaticum, occiput, pedicel of antennæ, except narrowly at apex, anterior margin of mesonotum and sutures dividing sclerites of thorax black. Wings hyaline, pubescent, veins brown, subcostal vein interrupted by a white bulla at its junction with marginal vein; marginal and postmarginal veins about equal, longer than stigmal. Head viewed from above subglobose, with the scrobes deep and extending nearly to front ocellus; pedicel obconical, twice and one-half longer than thick at apex; flagellum clavate, first three joints very small, together shorter than pedicel, and very much narrower, moniliform, joints beyond widening and wider than long. Thorax rugulose, except black anterior portion of mesonotum which is smoother but with delicate, transverse aciculations. Abdomen oval, finely coriaceous and sparsely pubescent, segments after second subequal in length.

Type—No. 4882, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Genus EURYTOMA, Illiger.

(15) EURYTOMA AUSTRALIENSIS, n.sp.

♀.—Length 2.4 mm. Black and similar in structure to *E. studiosa*, Say, clothed with a sparse, white pubescence. Antennæ wholly black; tegulæ, tips of femora, tibiæ, except a subfuscous median blotch *outwardly*, and all tarsi honey-yellow. Pedicel small, obconic, very little longer than thick and smaller than first

joint of funicle; funicle 5-jointed, joints nearly equal in size, submoniliform; club 3-jointed, as long as last three joints of funicle united. Wings hyaline, venation brown, subcostal vein yellowish towards base. Hind coxæ outwardly towards base shagreened. Abdomen conic-ovate, smooth and polished, except the short petiole, which is rather coarsely shagreened; fourth dorsal segment longer than second and third united.

Type.—No. 4883, U.S.N.M.

Hab..—Australia (A. Koebele, collector).

(16) EURYTOMA EUCALYPTI, n. sp.

♀.—Length 2.6 to 3 mm. Black; anterior angles of pronotum, as seen from side, with a yellowish spot, seen from above, invisible; antennæ, except *apex* of scape and base of pedicel which are black, mandibles, tegulæ, and legs, except hind coxæ and middle of hind femora, ferruginous or brownish-yellow; wings hyaline, costal vein yellow, marginal, stigmal and post-marginal veins brown-black, the latter subpetiolate, ending in a large rounded stigma with an uncus.

Vertex of head and thorax above clothed with a rufous pubescence, that on the face, sides of thorax and metapleura white or silvery-white.

Funicle 5-jointed, joints fluted and a little wider than long. Sides of thorax and parapsides *broadly* along sutures opaque and coriaceous. Marginal and postmarginal veins about of an equal length, but the former stout, the latter acuminate; stigmal vein very short, ending in a large, rounded stigma as in *Megastigmus*, with an uncus. Abdomen ovate, and, except petiole and segments 6 and 7, smooth, highly polished; the petiole, which is hardly longer than thick, and segments 6 and 7 finely rugulose or shagreened; fourth body-segment very long, occupying fully half the whole surface of abdomen.

♂.—Length 2 to 2.4 mm. Agrees well with the ♀, except in its antennal and abdominal characters: joints of funicle excised and petiolate at apex, basal portion of joint with whorled hairs; basal part of first joint nearly twice as long as

thick, basal part of the following being quadrate or nearly so; abdomen with petiole four times as long as thick, shagreened, and with a grooved line down centre; body subglobose, segments subequal; hind coxæ opaque, coriaceous.

Type—No. 4884, U.S.N.M.

Hab.—Uralla, N.S.W.

Described from several specimens bred by Mr. Froggatt, from galls on *Eucalyptus*.

(17) EURYTOMA BINOTATA, n.sp.

♀.—Length 3.5 to 5 mm. Black, clothed with a whitish pubescence; pronotum with two oblong oval yellow spots, one on each anterior angle, and both distinctly visible from above; scape of antennæ, pedicel at apex, and legs, except coxæ and a blotch on middle of femora above, pale ferruginous; rest of antennæ and coxæ black. Wings hyaline, venation brown, marginal vein a little longer than postmarginal, stigmal vein normal, very nearly as long as postmarginal.

Head and thorax closely umbilicately punctate; funicle joints a little longer than thick; abdomen conic-ovate, subsessile, a little longer than head and thorax united, acutely pointed at apex, sides of segments 4-7 ciliate with white hairs, fourth segment and beyond very delicately shagreened at sides.

Type—No. 4885, U.S.N.M.

Hab.—Sydney, N.S.W. "Bred from galls on the turpentine tree" (Froggatt).

Family lxiv.—PERILAMPIDÆ.

Family lxv.—EUCHARIDÆ.

Genus METAGEA, Kirby.

(18) METAGEA KIRBYI, n.sp.

♀.—Length 4 mm. Aeneous-black, tinged with blue or purplish in certain lights. Head and thorax, except discs of parapsides which are smooth and aeneous, coarsely rugose. Legs brownish-



yellow, femora, except at tips, dark brown, hind coxæ black, hind tibiæ, except tips, fuscous. Wings hyaline, venation brown. Flagellar joints, except first, submoniliform, not or very little longer than thick; first joint of flagellum as long as 2 and 3 united. Abdomen aeneous-black, petiole about four times as long as thick, smooth and impunctate.

Type—No. 4886, U.S.N.M.

Hab.—Australia, Gosford (A. Koebele, collector).

(19) *METAGEA RUFIVENTRIS*, n.sp.

♀.—Length 9 mm. Head and thorax bright metallic green, coarsely rugose; mouth parts, scape, pedicel and legs, except coxæ, yellow; abdomen, except petiole, second segment at base above and hypopygium wholly rufous; flagellum and second abdominal segment at base above black, petiole purplish; wings subfuscous, hyaline at base.

Flagellar joints 1 to 6 all longer than thick, terminal joints alone moniliform; first three or four joints elongate, but gradually shortening, first about five times as long as thick at apex, fourth less than two-thirds length of first, the others still shorter, 7th and 8th submoniliform. Abdomen, except as noted, red, petiole about four times as long as thick, finely microscopically punctate above.

Type—No. 4887, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Family lxi.—MISCOGASTERIDÆ.

Subfamily ii.—TRIDYMINÆ.

Genus *ASEMANTUS*, Förster.

(20) *ASEMANTUS CECIDOMYLÆ*, n.sp.

♀. Length 2.4 mm. Metallic bronzed-green, finely, closely punctate, head with some thimble-like punctures along anterior orbits and on vertex; mesopleura blue, almost smooth; scrobes distinct, semicircular; antennæ brown-black, scape aeneous-black,

flagellum subclavate, sparsely pubescent, funicle joints longer than thick. Thorax with parapsidal furrows distinct, entire; anteriorly abruptly truncate, the pronotum not being visible from above except slightly at lateral angles; scutellum large, axillæ widely separated. Legs yellow, coxæ, except at tips, metallic; trochanters, tarsi and tegulæ yellowish-white. Wings hyaline, marginal, post-marginal and stigmal veins light brown, the marginal vein being very long, fully four-fifths length of subcostal vein, postmarginal vein about half length of marginal, stigmal a little shorter than marginal and ending in a rounded knob. Abdomen conically elongate and about one-third longer than head and thorax united.

♂.—Length 1.8 mm. Blue to bluish-green; flagellum long, filiform, joints more than twice as long as thick, first and second fully thrice as long as thick; legs, except middle and hind coxæ, wholly yellow; abdomen oblong, depressed, and scarcely as long as thorax.

Type—No. 4888, U.S.N.M.

Hab.—Sydney, N.S.W.

Host—Dipt.: *Cecidomyia frauenfeldi* (W. W. Froggatt).

Family lxvii.—CLEONYMIDÆ.

Subfamily i.—CHALCEDECTINÆ.

Genus SYSTOLOMORPHA, Ashmead, n.g.

(21) SYSTOLOMORPHA THYRIDOPTERYGIS, n.sp.

♀.—Length 1.8 to 2 mm. Black, shining; flagellum brown; sutures of trochanters, tips of femora and all tibiæ and tarsi yellowish-white; wings hyaline, venation brown.

Head transverse, a little wider than thorax, about thrice as wide as thick antero-posteriorly, scrobes delicately impressed but distinct; ocelli 3, arranged in an obtuse triangle, lateral ocelli a little wider from each other than to front ocellus; surface of head distinctly coriaceous. Antennæ short, flagellum clavate, pedicel short, obconical, a little longer than thick and much larger than first two joints of funicle; funicle joints short, wider than

long, all gradually widening to club. Thorax in shape similar to the Eurytomid genus *Systole*, Walker, parapsidal furrows distinct, entire, mesonotum delicately transversely aciculate; scutellum coriaceous, axillæ meeting at their inner basal angles; metathorax short, abrupt, smooth, with small, rounded spiracles. Wings hyaline, with a faint discoidal cloud, venation brown, marginal and postmarginal veins about equal, one-third the length of subcostal vein, stigmal vein a little shorter than marginal, gently curved and ending in a small knob. Abdomen subglobose, subcompressed beneath and sessile, not longer than thorax, second segment (or first body-segment) nearly twice length of third, the following subequal. Hind femora somewhat swollen, with a slight tooth beneath before apex.

Type.—No. 4889, U.S.N.M.

Hab..—Adelaide, S. Australia.

Host..—Lepid.: *Thyridopteryx* sp., on *Eucalyptus* sp. Bred Oct. 22, 1886, by A. Koebele.

Genus AGAMERION, Haliday.

(22) AGAMERION COERULEIVENTRIS, n.sp.

♂.—Length 3.8 mm. Robust, metallic blue-green, thorax above bronzed-green; face from front ocellus, thorax at sides and beneath, tegulæ, legs, except as noted, and abdomen decidedly blue; flagellum brown-black; anterior and middle tarsi and hind tibiæ, all along outer face, ivory or yellowish-white.

Head transverse, eyes large, convergent above, face below between base of eyes fully twice as wide as the space on vertex; scrobes distinct, long, in outline triangular; head above and thorax above with a close thimble-like punctuation, finer and feebly on sides and on hind coxæ. Wings hyaline, subcostal and stigmal veins yellowish, postmarginal and marginal veins pale brown, the latter being two-thirds the length of subcostal, postmarginal longer than stigmal.

Type.—No. 4890, U.S.N.M.

Hab..—Australia (A. Koebele, collector).

Subfamily ii.—CLEONYMINÆ.

Genus THAUMASURA, Westwood.

(23) THAUMASURA TEREBRATOR, Westwood.

A single specimen of this remarkable and rare species is labelled "No. 125, South Australia" (W. W. Froggatt).

(24) THAUMASURA RUBROFEMORALIS, n.sp.

♀.—Length 10 mm.; to tip of ovipositor 14·5 to 15 mm. Head and thorax metallic bronzed-green, tinged with blue, and clothed with a whitish pubescence; abdomen above blue, beneath bronzed, segments bearded with white hairs at sides; flagellum brown; coxæ metallic blue-green, all femora red, rest of legs fuscous or brown-black. Wings hyaline, venation brown.

Type—No. 4891, U.S.N.M.

Hab.—Sydney, N.S.W. (W. W. Froggatt).

Genus DINOURA, Ashmead, n.g.

(25) DINOURA AURIVENTRIS, n.sp.

♀.—Length 4·8 mm.; to tip of ovipositor nearly 7 mm. Head bluish or blue-green, with a metallic green spot on vertex enclosing ocelli; thorax above metallic green, at sides and beneath, with metathorax, blue or blue-green; femora, except tips, aeneous-black, anterior pair more or less bluish; rest of legs pale yellowish, hind tibiæ obfuscated medially. Wings hyaline, venation dark brown. Abdomen gold-green and terminating in a prominent ovipositor which is dilated into three broad leaf-like expansions, like a propeller in a naphtha launch.

♂.—Length 3·6 mm. Antennæ 9-jointed, flagellum filiform, clothed with a short, dense, felt-like pubescence, joints longer than thick; all legs aeneous-black, with white tarsi; abdomen oblong-oval, bronzed-black, metallic greenish above towards base.

Type—No. 4892, U.S.N.M.

Hab.—Sydney, N.S.W. Bred by Mr. Froggatt from galls of *Brachyscelis pileata*.

(26) *DINOURA CYANEA*, n.sp.

♀.—Length 5 mm.; to tip of ovipositor 10 mm. Head and thorax blue, with a metallic green tinge on thorax above; basal half of abdomen yellowish; anterior and middle tibiæ, hind tibiæ along outer face and all tarsi ivory white. Wings hyaline, as in previous species.

Type—No. 4893, U.S.N.M.

Hab.—Wellington, N.S.W. Bred Aug. 20, 1891, by Mr. Froggatt, from *Brachyscelis ovicola*, Schr.

Family lxviii.—ENCYRTIDÆ.

Subfamily i.—EUPELMINÆ.

Genus *EUPELMUS*, Dalman.(27) *EUPELMUS ANTIPODA*, n.sp.

♀.—Length 3 mm. Head metallic green, thorax bottle-blue mesopleura with a greenish tinge; abdomen aeneous-black, ovipositor prominent, yellow for two-thirds its length; wings fuscous, except at basal third which is hyaline; all coxæ metallic green; sutures of trochanters, tips of tibiæ and tarsi yellowish-white, rest of legs aeneous-black.

Type—No. 4894, U.S.N.M.

Hab.—Sydney, N.S.W. Bred by Mr. Froggatt from the eggs of a Mantis.

Subfamily ii.—ENCYRTINÆ.

Genus *CERCHYSIUS*, Westwood.(28) *CERCHYSIUS AUSTRALIENSIS*, n.sp.

♀.—Length 2.6 mm. Aeneous-black, head blue-black, face below scrobes metallic bluish-green, scutellum, mesopleura and abdomen decidedly metallic-greenish; antennæ black; legs, except hind coxæ, apical half of hind femora and basal two-thirds of hind tibiæ brownish-yellow. Wings fuscous, with basal third hyaline, venation dark brown, stigmal and postmarginal

veins longer than marginal. Ovipositor about the length of basal joint of hind tarsi, sheaths broad.

Type.—No. 4895, U.S.N.M.

Hab..—Australia (A. Koebele, collector).

Family lxix.—PTEROMALIDÆ.

Subfamily i.—MERISINÆ.

Genus BRACHYSCELIDIPHAGA, Ashmead, n.g.

(29) BRACHYSCELIDIPHAGA FLAVA, n.sp.

♀.—Length 1·2 to 1·4 mm. Yellow, smooth, impunctate, or at most with the surface feebly alutaceous; eyes and ocelli black; occiput, pronotum on anterior face, a spot on middle lobe of mesonotum, a spot on inner angle of lateral lobes, a large spot on disc of scutellum, sutures surrounding scutellum and metathorax brown-black; abdomen above, except basal segment, dusty or brownish. Wings hyaline, venation dark brown; marginal and postmarginal veins about equal, one-third length of subcostal vein; stigmal vein a little shorter than marginal, terminating in a rounded knob, with an uncus. Antennæ short, flagellum clavate, pedicel stout, obconical, about twice as long as thick at apex and very much longer and stouter than first three or four funicle joints united; first joint of funicle very small, about as long as thick, second also small, a little wider than long, the following gradually increasing in size and width and all wider than long.

Type.—No. 4898, U.S.N.M.

Hab..—Sydney, N.S.W. Bred by Mr. Froggatt from *Brachyscelis pileata*.

Genus TEROBIELLA, Ashmead, n.g.

(30) TEROBIELLA FLAVIFRONS, n.sp.

♀.—Length 2·8 mm. Mostly black, polished and impunctate; head on vertex and posteriorly including temples black; face below front ocellus, cheeks, mandibles, palpi, antennæ and

tegulae brownish-yellow; thorax and abdomen entirely black; legs, except coxae which are dark fuscous, yellow. Wings hyaline, venation brown, postmarginal vein one-half longer than marginal, stigmal vein slightly longer than marginal, but scarcely so long as postmarginal, subclavate, with an uncus at apex. Head transverse, a little more than thrice wider than long, face above insertion of antennae subconvex, ocelli arranged in an obtuse triangle. Antennae inserted on, or near, middle of face, scape rather short, subcompressed, pedicel subglobose, joints of funicle short, wider than long, outer apical angles acute.

Thorax with distinct, entire parapsidal furrows, metathorax very short, abrupt and smooth medially, mesopleural ridges closely punctate or rugulose, spiracles small, rounded. Abdomen as seen from above broadly oval, shorter than thorax, dorsum flat, beneath convex, first dorsal segment occupying nearly half the whole surface, the following segments short, subequal.

Type—No. 4897, U.S.N.M.

Hab.—Sydney, N.S.W. Bred by Mr. Froggatt, from a lumpy gall on a *Eucalyptus* twig.

Genus COELOCYBA, Ashmead, n.g.

(31) COELOCYBA NIGROCINCTA, n.sp.

♀.—Length 3 mm. Brownish-yellow, shagreened; ocelli arranged in a triangle, black; eyes brown; occiput, anterior face of pronotum, parapsidal furrows, sutures of scutellum, metathorax, and broad bands at base of all dorsal abdominal segments black; wings hyaline, venation pale yellowish.

Head transverse, less than thrice as long as thick antero-posteriorly, vertex convex, face concave for reception of antennae which are inserted far anteriorly. Antennae short, pedicel oblong, swollen, flagellum short, clavate, all the joints very short, transverse-linear. Thorax a little more than twice longer than wide, pronotum short but almost as wide as mesonotum, rounded anteriorly; mesonotum a little wider than long, with distinct sharply defined parapsidal furrows; scutellum proper (middle

lobe) trapezoidal, axillæ widely separated; metathorax short but not abrupt, and smooth. Front wings with the postmarginal vein very long, much longer than marginal, stigmal vein also long, longer than marginal but still shorter than postmarginal. Abdomen sessile, conic-ovate, a little longer than head and thorax united, flat above, and beneath at apical half, but with ventral half compressed and carinate. Hind coxæ very large, compressed, outer face flat.

Type—No. 4898, U.S.N.M.

Hab.—Sydney, N.S.W. Bred by Mr. Froggatt from an Agromyzid gall on *Eucalyptus corymbosa*.

Subfamily ii.—PTEROMALINÆ.

Genus PTEROMALUS, Swederus.

(32) PTEROMALUS PUPARUM, Linné.

Six ♀ and two ♂ specimens of this common species were bred by Mr. Froggatt from the pupa of *Papilio erectheus*.

Subfamily iii.—SPHEGIGASTERINÆ.

Genus OPHELOSIA, Riley.

(33) OPHELOSIA CRAWFORDI, Riley.

Hab.—Sydney, N.S.W. Twelve ♀ specimens, bred by Mr. Froggatt from the adult female of *Icerya purchasi*.

GENUS TOMOCERA, Howard.

(34) TOMOCERA CALIFORNICA, Howard.

(Syn. *Moranila testaceiceps*, Cam.)

Hab.—California; Hawaiian Islands.

A specimen of this species is in the National Museum, collected in Australia by A. Koebele. The species is parasitic on *Lecanium oleæ*, but has not before been reported from Australia.

Family lxx.—ELASMIDÆ.

Genus EURYISCHIA, Riley & Howard.

(35) EURYISCHIA LESTOPHONI, Riley & Howard.

Hab.—Sydney. Ten specimens, bred by Mr. Froggatt from *Icerya rosæ*, on *Grevillea* sp.

Family lxxi.—EULOPHIDÆ.

Subfamily ii.—APHELININÆ.

Genus PTEROPTRIX, Westwood.

(36) PTEROPTRIX MASKELLI, n.sp.

♀.—Length 0.60 mm. Black, shining; antennæ and tegulæ light brown; tips of all femora, or knees, anterior tibiæ, except in front, extreme tips of middle and hind tibiæ, and all tarsi, except last joint, snow-white. Wings hyaline, ciliate, veins light brown.

♂.—Length about 0.54 mm. Yellow; legs ivory-white; eyes purplish-brown; a spot on pronotum anteriorly and a minute dot on hind angles, two spots on disc of mesonotum, a spot on each parapside, and the metanotum black; abdomen with dorsal segments narrowly banded with brown.

Type—No. 4899, U.S.N.M.

Hab.—Wellington, New Zealand.

Host.—Rhynch.: a Psyllid on *Eucalyptus*. Bred by the late Mr. W. M. Maskell.

Subfamily iii.—TETRASTICHINÆ.

Genus TETRASTICHODES, Ashmead.

(37) TETRASTICHODES FROGGATTI, n.sp.

♀.—Length 0.8 mm. Sulphur-yellow; eyes brown-black; a transverse band on vertex enclosing ocelli, middle lobe of mesonotum, a dot or minute spot on inner hind angles of parapsides, a spot on scutellum at its anterior middle, metanotum and

dorsal abdominal segments 3, 4, and more or less of 5, black or brown-black; first dorsal segment sometimes also dusky or slightly obfuscated; flagellum light brownish, pubescent. Wings hyaline, venation pale, nearly hyaline. Abdomen ovate. Legs pale yellowish, tibiae and tarsi whitish.

♂.—Length about 0.6 mm. Polished black, head anteriorly brown; legs, except coxæ, yellowish-white.

Type—No. 4900, U.S.N.M.

Hab.—Hornsby, near Sydney, N.S.W.

Described from many specimens, bred by Mr. Froggatt from "a small shot gall on *Eucalyptus*."

Subfamily iv.—ELACHISTINÆ.

Genus EUPLECTRUS, Westwood.

(38) EUPLECTRUS AUSTRALIENSIS, n.sp.

♀.—Length 3 mm. Head and thorax black, clothed with long white hairs; antennæ light brownish; legs, except hind coxæ, and abdomen, extreme tip above, peach-yellow, trochanters ivory-white, hind coxæ black, polished.

Pronotum rather coarsely confluent punctate, middle and lateral lobes of mesonotum with sparse moderately large punctures anteriorly but posteriorly smooth, scutellum feebly shagreened.

Type—No. 4901, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Subfamily v.—EULOPHINÆ.

Genus DIAULOMORPHA, Ashmead, n.g.

(39) DIAULOMORPHA AUSTRALIENSIS, n.sp.

♀.—Length 2 mm. Gold-green, reticulately shagreened; antennæ black, 8-jointed, flagellum subcompressed, clothed with a short, dense pubescence, funicle 3-jointed, first and second joints longer than wide, third about as long as wide; legs, except coxæ, brownish-yellow, hind coxæ golden-green, strongly punctate;

scutellum with two delicate, parallel grooved lines, postscutellum large, half length of scutellum; metathorax short, with a median carina. Wings hyaline, veins brown, marginal vein very long, almost as long as subcostal vein, stigmal and postmarginal veins also long, more than half length of marginal. Abdomen conic-ovate, as seen from above, subdepressed.

Type—No. 4902, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Superfamily viii.—ICHNEUMONOIDEA.

Family lxxiv.—EVANIIDÆ.

Subfamily iii.—AULACINÆ.

Genus AULACUS, Jurine.

(40) AULACUS APICALIS, Westwood.

Hab.—Sydney, N.S. Wales. Three ♀ specimens, bred by Mr. Froggatt from the larva of *Piesarthrius marginellus*, Hope, a longicorn beetle, feeding upon *Acacia longifolia*.

Family lxxvi.—ICHNEUMONIDÆ.

Subfamily i.—ICHNEUMONINÆ.

Genus PROBOLUS, Wesmael.

(41) PROBOLUS CINCTUS, Ashmead.

Hab.—New Zealand (A. Koebele, collector).

(42) PROBOLUS BASILARIS, Ashmead.

Hab.—New Zealand (A. Koebele, collector).

(43) PROBOLUS APICALIS, Ashmead.

Hab.—New Zealand.

The above species were originally described from Wisconsin, U.S.A., being placed doubtfully in the genus *Eristicus*. It is quite evident now from Mr. Koebele's collecting them in New Zealand that they do not belong to our fauna and that some collector palmed them off on the U.S.N.M. as from Wisconsin.

Subfamily ii.—CRYPTINÆ.

Tribe v.—Cryptini.

Genus CHROMOCRYPTUS, Ashmead.

(44) CHROMOCRYPTUS ANTIPODIALIS, n.sp.

♀. Length 5.2 mm. Black; antennal joints 7 and 8 *above*, anterior margin of pronotum, a narrow band at apex of second dorsal segment of abdomen, and two spots on tegulæ white; metathorax, legs (except tips of hind tibiæ and their tarsi) and first segment of abdomen rufous. Wings hyaline, venation, except basal half of stigma which is white, black.

Type—No. 4903, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Subfamily iii.—PIMPLINÆ.

Tribe i.—Acoenitini.

Genus LEPTOBATOPSIS, Ashmead, n.g.

This new genus falls in next to *Leptobatus*, Grav., but may be easily separated by the following differences:—

Front wings *with* an areolet.

Arolet large, rhomboidal; ovipositor as long as or longer than the abdomen; head as in *Exetastes*: claws simple..... *Leptobatus*, Grav.

Arolet small, petiolate; ovipositor shorter than the abdomen, the abdomen elongate, narrowed towards the base, the first segment long, slender, petioliform; claws pectinate *Leptobatopsis*, Ashm., n.g.

(45) LEPTOBATOPSIS AUSTRALIENSIS, n.sp.

♀.—Length 9 mm. Black, shining; two lunate spots on vertex (one near each eye), a narrow line on lower anterior orbits, clypeus, mandibles, except tips, a line anteriorly at sides of prothorax, sometimes interrupted, two triangular spots on mesonotum anteriorly (one on each side), a spot beneath tegulæ,

scutellum, a spot on metopleura just above hind coxæ, first segment of abdomen, a band at base of second and third segments, a narrow band at apex of third and a large band at apex of abdomen yellow or yellowish-white; legs rufous, anterior coxæ and trochanters, middle coxæ, a moderately broad annulus near base of hind tibiæ and basal joint of hind tarsi, except apex, white; tips of hind femora, a narrow annulus at extreme base of their tibiæ, before the white annulus, the rest of tibiæ and tarsi black. Wings hyaline with a large fuscous cloud at apex, veins black.

Head narrowly transverse, smooth, impunctate; thorax rather closely punctate, *without* parapsidal furrows; metathorax closely rugoso-punctate.

Type—No. 4904, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Tribe ii.—**Labenini.**

This tribe is represented by only three genera—*Labena*, *Grotea* and *Nonnus*, Cresson. It is not yet recognised outside of the American fauna.

Tribe iii.—**Lissonotini.**

Genus **EUCTENOPUS**, Ashmead, n.g.

This new genus falls in next to *Phytodietus*, Grav., so far as its metathoracic characters are concerned, and in having no transverse apical carina, but differs greatly in other characters. The two compared may be easily separated by the following diagnoses:

- | | |
|--|---------------------------------------|
| <p><i>a.</i> Transverse median nervure in hind wings broken <i>below</i> the middle; eyes not quite extending to base of mandibles, the malar space being fully as long as the pedicel; submedian and median cells in front wings equal</p> | <p><i>Phytodietus</i>, Grav.</p> |
| <p><i>aa.</i> Transverse median nervure in hind wings broken <i>at</i> or a little <i>above</i> the middle; eyes extending to base of mandibles, <i>without</i> a malar space; submedian cell in front wings distinctly shorter than the median.....</p> | <p><i>Euctenopus</i>, Ashm., n.g.</p> |

(46) *EUCTENOPUS NOVAZEALANDICUS*, n.sp.

♀.—Length 9 mm. Head and thorax castaneous; orbits, face and clypeus, apical third of antennæ, except four or five apical joints, and legs, except parts to be noted, all lemon-yellow; middle and hind coxæ concolorous with thorax, apical third of hind tibiæ, their spurs and basal joint of their tarsi fuscous; claws black, thickly pectinate. Wings subfuscous, stigma and veins black.

Type—No. 4905, U.S.N.M.

Hab.—New Zealand (A. Koebele, collector).

Tribe iv.—**Pimplini.**Genus *ALLOTHERONIA*, Ashmead, n.g.

This new genus falls in a table of genera next to *Theronia*, Holmgren, and the recently established genus *Neotheronia*, Krieger, but may be at once separated from them by the following characters:—

Claws simple, *not* pectinate; metathorax exareolated, but with a strong transverse apical carina, the upper hind angles dentate or tuberculate; hind femora unarmed.... *Allotheronia*, Ashm., n.g.

(47) *ALLOTHERONIA 12-GUTTATA*, n.sp.

♀.—Length 10-11 mm. In stature and general appearance resembles somewhat *Lissopimpla 8-guttata*, Kriechbaumer. Black; antennæ, anterior and hind orbits narrowly, face below antennæ, clypeus, mandibles, except tips, and legs, except middle coxæ and hind coxæ and trochanters, red; two small spots at base of scutellum, a spot on metascutellum, a dot below insertion of both pairs of wings, a dot above middle and hind coxæ, metathoracic tubercles and two dots or small spots at apex of abdominal segments 1 to 6 white. Wings fuscous or subfuscous with a black spot at apex of marginal cell, stigma and veins brown-black or black. Thorax, except a smooth median spot on mesopleura, closely, finely, rugulosely punctate; abdomen smooth,

polished, impunctate, but with the transverse and oblique lateral furrows or impressions as in *Lissopinula*, Kriechb.

Type—No. 4906, U.S.N.M.

Hab.—Australia.

Host—Lepid. Bred by A. Koebele from the pupa of an unknown Noctuid moth.

Subfamily iv.—TRYPHONINÆ.

Tribe v.—**Bassini.**

Genus **BASSUS**, Gravenhorst.

(48) **BASSUS LAETATORIUS**, Fabr.

Hab.—Europe, North America.

Two specimens of this common European species are in the National Museum, taken by Mr. Koebele in New Zealand. Dr. Shauinsland has also taken it on the Chatham Islands.

Subfamily v.—OPHIONINÆ.

Tribe iv.—**Anomalini.**

Genus **BARYLYTA**, Förster.

(49) **BARYLYTA COARCTATA**, n.sp.

♀.—Length 16 to 17 mm. Head black; anterior orbits, face below insertion of antennæ, clypeus, cheeks, mandibles, palpi, scape beneath, scutellum, anterior and middle coxæ and trochanters, together with their tibiæ and tarsi, and tips of basal joint of hind tarsi, as well as joints 2-4, all lemon-yellow; rest of the legs, except hind tibiæ and basal joint of hind tarsi, except as noted, rufous; hind tibiæ and basal joint of hind tarsi black, or dark fuscous. Thorax dark rufous, washed here and there with black, metathorax wholly dark ferruginous. Wings hyaline, stigma and veins black. Abdomen rufous, segments from second more or less blackish along dorsal edges; ovipositor short, black.

Type—No. 4907, U.S.N.M.

Hab.—Australia (A. Koebele, collector : 4 ♀ specimens).

Tribe vi.—**Paniscini.**Genus **PANISCUS**, Gravenhorst.(50) **PANISCUS PRODUCTUS**, Brullé.*Hab.*—New Zealand (A. Koebele, collector : 8 specimens).Family lxxvii.—**ALYSIIDÆ.**Subfamily iii.—**ALYSIINÆ.**Genus **ASOBARA**, Förster.(51) **ASOBARA ANTIPODA**, Ashmead.*Hab.*—Chatham Islands (Dr. Schauinsland).Family lxxviii.—**BRACONIDÆ.**Subfamily i.—**APHIDIINÆ.**Genus **LIPOLEXIS**, Förster.(52) **LIPOLEXIS RAPÆ**, Curtis.

This European species, incorrectly placed in the genus *Aphidius* by Marshall, has been taken in Australia by Mr. Koebele. It is a common species in Europe and the United States, and attacks *Aphis brassicæ*.

Subfamily iv.—**METEORINÆ.**Genus **METEORUS**, Haliday.(53) **METEORUS ANTIPODALIS**, n.sp.

♀.—Length 3.6 mm. Pale ferruginous or brownish-yellow; mouth-parts, pronotum at sides, petiole of abdomen and legs, except hind coxæ, femora and tibiæ, all pale yellowish; eyes large, purplish-brown; ocelli pale but situated on a black spot; parapsides, the crenate furrow at base of scutellum and meta-thorax black or blackish. Wings hyaline, stigma and veins brown; submedian cell longer than median, recurrent nervure

received by second cubital cell near its base. Hind coxæ, femora and tibiæ ferruginous, petiole of abdomen with two black spots at apex.

Type—No. 4908, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Subfamily ix.—CHELONINÆ.

Genus PHANEROTOMA, Wesmael.

(54) PHANEROTOMA AUSTRALIENSIS, n.sp.

♀.—Length 4 mm. Uniformly brownish-yellow, the surface finely rugulose; eyes broadly oval, brown-black; ocelli close together on a black spot; teeth of mandibles black, outer very long, acute. Wings hyaline, stigma and most of veins brown, median and submedian veins yellowish; first abscissa of radius and second transverse cubitus short, first transverse cubitus unusually long, being fully thrice as long as second transverse cubitus, thus giving the second cubital an unusual shape, which will at once distinguish the species. Abdomen 3-segmented, rugulose.

Type—No. 4909, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Subfamily x.—AGATHIDINÆ.

Genus ORGILONEURA, Ashmead, n.g.

This genus may be easily separated from *Microdus*, Latr., by the following differences:—

Areolet triangular and usually petiolate; subdiscoidal nervure in hind wings originating above the middle of the discoidal nervure; metathorax not areolated.....	<i>Microdus</i> , Latr.
Areolet wanting or incomplete; subdiscoidal nervure in hind wings wholly absent, the transverse median nervure straight; metathorax short, exareolated	<i>Orgiloneura</i> , Ashm., n.g.

(55) *ORGILONEURA ANTIPODA*, n.sp.

♀.—Length 5 mm.; ovipositor longer than abdomen. Head, except eyes, and anterior legs, except base of femora, trochanters and coxæ, and middle legs, except femora, trochanters and coxæ, ferruginous; antennæ, thorax, rest of legs and abdomen, except first two segments, which are pale yellowish except a discal blotch on second, black. Wings fuscous, stigma and veins dark brown, almost black.

Type—No. 4910, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Subfamily xii.—*MICROGASTERINÆ*.Genus *ACOELIUS*, Haliday.(56) *ACOELIUS AUSTRALIENSIS*, n.sp.

♀.—Length 1.2 mm. Body including legs wholly black; wings hyaline, with a large brown band across middle and occupying all but apical and basal thirds of wing. Antennæ very long, about twice length of body, tapering off to a point at apex, broadest a little beyond middle. Head and thorax finely, closely punctate, opaque, and clothed with a dull sericeous pubescence; metathorax shining, areolated. Abdomen oblong-oval, shining, impunctate, ovipositor subexserted.

Type—No. 4911, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Genus *APANTELES*, Förster.(57) *APANTELES ANTIPODA*, n.sp.

♀.—Length 2.1 to 2.4 mm. Black; mandibles ferruginous; palpi white; legs brownish-yellow, hind coxæ, except apex, black, finely rugulose, apex of hind femora, apex of hind tibiæ and their tarsi, more or less fuscous; ventral abdominal segments 1-4 brownish-yellow.

Head smooth, polished, impunctate, except indistinctly on face below antennæ. Antennæ, except apex of pedicel, wholly black,

18-jointed, and a little longer than body. Mesonotum and scutellum closely punctate, opaque or subopaque, lateral hind angles of the former shining and less closely punctate; mesopleura with a large, smooth, shining, impunctate disc, but the surface surrounding it, as well as the mesosternum, closely punctate; metathorax rugulose, *without* a median carina. Wings hyaline, stigma and veins light brown, costal veins, in both wings, to near their apex pale yellowish; areolet open behind, the inner side, or what represents the transverse cubitus, being as long as first abscissa of radius. Abdomen, except as noted, black polished, first two segments sculptured or irregularly longitudinally rugulose; first segment trapezoidal, a little longer than wide at apex, one-half longer than second, second and third about equal, fourth, fifth and sixth subequal, shorter than third; ovipositor with its tip alone exposed.

♂.—Length 1.5 mm. Differs from the female only in its smaller size, in having longer antennæ, smaller abdomen, and by the second dorsal segment of abdomen being less distinctly sculptured and a little shorter than third.

Type—No. 4912, U.S.N.M.

Hab.—Sydney, N.S. Wales.

Host—Lepid.: *Agrotis* sp. Bred by Mr. Froggatt.

(58) *APANTELES AUSTRALIENSIS*, n.sp

♀.—Length 4 mm. Black, shining; palpi pale yellowish; legs peach-yellow, hind pair a little darker or obfuscated, all coxæ black, smooth, impunctate, hind femora with a black spot at extreme apex, apical third of their tibiæ and their tarsi fuscous; membranous lateral margins of dorsal abdominal segments 1-2 and ventral segments 1-3 yellowish.

Head smooth, shining, impunctate, face with a longitudinal median ridge. Thorax shining, mesonotum punctate, but the punctures shallow, not close nor dense; scutellum smooth, impunctate, or at most with a few faint, scarcely impressed punc-

tures; mesopleura, except along anterior margin, and mesosternum smooth, impunctate; metathorax rugulose, *with* a distinct median carina. Wings hyaline, stigma and veins, except costal, median and submedian veins, which are pale yellowish, reddish-brown. Abdomen as long as thorax and, except as noted, black, plate of first segment fully twice as long as wide, sparsely punctate, sides parallel, hind angles rounded; second segment shorter than third, sparsely punctate and with two oblique furrows; segments 4-6 subequal, second separated from third by a punctate or crenate furrow.

Type—No 4913, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Subfamily xiv.—OPIINÆ. .

Genus DIACHASMA, Förster.

(59) DIACHASMA CARPOCAPSÆ, n.sp.

♀.—Length 5 mm. Robust; head and thorax orange, stemmaticum, antennæ, legs and abdomen black, wings fuliginous, stigma and veins brown-black. Head and thorax smooth, impunctate, scutellum with a crenate furrow across base, metathorax with some coarse, irregular punctures. Abdomen oblong-oval, highly convex above, smooth and polished, except first segment which is longitudinally striate; ovipositor a little shorter than hind femur.

Type—No. 4914, U.S.N.M.

Hab.—New Zealand.

The species is from Mr. Koebele, and is labelled, "On *Carpocapsa pomonella*??"

The Opiines are, however, mostly parasitic upon Diptera, and I suspect, from what Mr. Coquillett tells me, that the species will be found to be parasitic on *Dacus tryoni*, a dipterous fruit-fly.

Subfamily xv.—BRACONINÆ.

This subfamily I have separated into three tribes, as follows:—

- Submedian cell in front wings much shorter than the median; eyes very large, extending clear to the base of mandibles, the face very narrow..... Tribe i.—*Aphrastobraconini*.
- Submedian and median cells in front wings equal; eyes non-extending to base of mandibles.. ... Tribe ii.—*Braconini*.
- Submedian cell very distinctly longer than the median; eyes normal Tribe iii.—*Euurobraconini*.

(The type of *Euurobracon*, Ashm., is *Bracon penetrator*, Smith, described from Japan).

Tribe ii.—*Braconini*.

Genus CALLIBRACON, Ashmead, n.g.

This new genus falls in between *Melanobracon*, Ashm., and *Coeliodes*, Wesmael, agreeing, however, more nearly with the former, especially in regard to the venation of the front wings. The two genera may be separated as follows:—

- Scape rather long, cylindrical, truncate at apex, the pedicel much shorter than the first joint of flagellum, the third flagellar joint shorter than either the first or second; second dorsal abdominal segment with oblique lateral depressions..... *Melanobracon*, Ashm.
- Scape subglobose, obliquely truncate from above, the pedicel small, annular, scarcely one-third the length of the first joint of the flagellum, the second and third flagellar joints equal, scarcely so long as wide, shorter than the first; abdomen banded with white *Callibracon*, Ashm., n.g.

(60) CALLIBRACON LIMBATUS, Brullé.

Bracon limbatus, Brullé, Hym. iv. p. 433.

Hab.—Australia (A. Koebele: two specimens).

Genus MICROBRACON, Ashmead.

(61) MICROBRACON THALPOCHARIS, n.sp.

♀.—Length 3 to 3·5 mm. Head, antennæ, legs and abdomen black, segments of abdomen narrowly banded with white at apex; thorax orange or brownish-yellow; wings subfuscous, stigma and veins brown; ovipositor a little longer than abdomen.

♂.—Differs from ♀ in having the tips of middle femora and their tibiæ and tarsi brownish-yellow.

Type—No. 4915, U.S.N.M.

Hab.—Australia; California. Bred by A. Koebele and D. W. Coquillett, from *Thalpochares coccophaga*.

(62) MICROBRACON TRICOLOR, n.sp.

♀ — Length 2·6 mm. Head and thorax (except mesopleura and metathorax), anterior legs and knees of middle legs brownish-yellow; eyes and ocelli brown-black; antennæ, mesopleura and metathorax, middle and hind legs, and abdomen black, extreme lateral margin of segments 1-3, extreme apical margin of third dorsal segment, and venter white; ovipositor as long as abdomen. Wings subfuliginous, stigma and veins dark brown, almost black.

Type—No. 4916, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

Genus IPHIAULAX, Förster.

(63) IPHIAULAX TRINOTATA, n.sp.

♂.—Length 3·5 mm. Elongate; head, thorax and legs honey-yellow; stemmaticum, eyes, antennæ, a spot on parapsides near tegulæ, a central blotch on metathorax, mesosternum and dorsum of abdomen black or brown-black. Wings subhyaline, stigma, except outer margin and veins, brown; outer margin of stigma and costal veins black.

Type—No. 4917, U.S.N.M.

Hab.—Australia (A. Koebele, collector).

(64) *IPHIAULAX AUSTRALIENSIS*, n.sp.

♂.—Length 10 mm. Black, except as follows: face from front ocellus, occiput, lower part of temples, cheeks, palpi, pronotum, except hind angles, anterior and middle legs, basal half of wings, stigma and a blotch beneath, yellow; first three segments of abdomen orange-red, apical margin of sixth and the following white.

First and second dorsal segments rugose, first tricarinate, middle keel highly elevated; second segment with broad depressions laterally, lateral and apical margins elevated, third segment with a broad, crenate furrow across base and a transverse punctate, subapical line, following segments to sixth with transverse impressed lines.

Type—No. 4918, U.S.N.M.

Hab.—Australia (A. Koebele, collector).